AMENDMENTS TO THE CLAIMS

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A~~n image analysis~~ method comprising: obtaining a first image(s) of a body part in a first plane, wherein the first image(s) generates a first image data volume; obtaining a second image(s) of the body part in a second plane, wherein the second image(s) generates a second image data volume; ~~and~~ extracting boundary image data from each of the first and second image data volumes; and combining the extracted boundary image data to form a resultant boundary data volume. ~~combining the first and second image data volumes to form a resultant image data volume, wherein the resultant image data volume is isotropic.~~

2. (Canceled)

3. (Currently amended) The method according to claim 1, wherein ~~said~~ the second image(s) is taken at an angle between about 0 and about 180 degrees from the first image(s).

4. (Currently amended) The method of claim 1, wherein the first image(s) is taken at a first angle and the second image(s) is taken at a second angle, and further wherein the first angle does not equal the second angle.

5. (Currently amended) The method of claim 1, wherein the first image(s) is taken at a first time and the second image(s) is taken at a second time.

6. (Currently amended) The method of claim 3, wherein the second image(s) is taken at an angle between about 0 and about 90 degrees from the first image(s).

7. (Canceled)

8. (Canceled)

9. (Currently amended) The method of claim 1, further including: obtaining at least one additional image of a body part in a plane different than other planes, wherein the additional image generates an additional image data volume, wherein boundary image data is extracted from the additional image data volume; and wherein the boundary image data from the additional data volume is combined with the boundary image data from first and second image data volumes to form a resultant boundary data volume.

10. (Canceled)

11. (Currently amended) A method for designing an implant for a body part, ~~producing isotropic or near-isotropic image data~~ comprising: obtaining a first image data volume from a first image(s) in a first plane; obtaining a second image data volume from a second image(s) in a second plane; ~~extracting boundary~~ combining image data from each of the first and second image data volumes; and using the combined image data to derive an implant shape. ~~and combining the extracted boundary image data to form a resultant image data volume.~~

12. (Previously Presented) The method of claim 11, further including: obtaining at least one additional image data volume from at least one

additional image in a plane different than the first plane and the second plane; and combining the additional image data volume with the resultant image data volume to derive an implant shape.

13. (Previously presented) The method of claim 11, wherein the resultant image data volume is near-isotropic.

14. (Previously presented) The method of claim 11, wherein the resultant image data volume is isotropic.

15. (Previously Presented) The method of claim 11, wherein the first plane is at an angle relative to the second plane.

16. (Previously Presented) The method of claim 15, wherein the angle is between about 0 and about 180 degrees.

17. (Previously Presented) The method of claim 16, wherein the angle is between about 0 and about 90 degrees.

18. (Currently amended) A method for ~~generating a three dimensional data volume~~ treating a body part, comprising: acquiring at least two data volumes from at least two body part images performed in two different planes; combining the data volumes to form a resultant data volume; and deriving ~~selecting~~ a therapy for the body part using the resultant data volume.

19. (Previously Presented) The method of claim 18, wherein the combining step comprises: obtaining gray values for each data point in each of the data volumes; interpolating a resultant gray value from gray values; and assigning the resultant value to each data point of the resultant data volume.

20. (Canceled)

21. (Previously Presented) The method of claim 18, wherein the two scans are performed at ninety degrees relative to one another.

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Currently amended) A~~n image analysis~~ method comprising: obtaining at least one image of a body part in at least a first plane and a second plane, wherein the first plane generates a first image data volume and the second plane generates a second image data volume; ~~and~~ combining the first and second image data volumes to form a resultant image data volume, wherein the resultant image data volume is near-isotropic or isotropic; and using the resultant image data volume to derive an implant shape.

26. (Currently amended) A method for ~~generating a three-dimensional data volume~~ treating a body part, comprising: acquiring at least a first data volume and a second data volume from at least a first body part image and a second body part image, wherein the first body part image is obtained in a first plane and the second body part image is obtained in a second plane and further wherein the first plane is not equal to the second plane; extracting boundary image data from each of the data volumes; combining the ~~first~~ extracted boundary image data ~~volume and the second data volume~~ to form a resultant boundary data volume; deriving the three-dimensional shape of the body part from the resultant boundary

data volume; and selecting ~~monitoring~~ a therapy utilizing the three-dimensional shape information~~resultant data volume~~.

27. (Canceled)

28. (Canceled)

29. (Previously Presented) The method of claim 26, wherein the two scans are performed at ninety degrees relative to one another.

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Previously Presented) The method of claim 26, wherein the first data volume is obtained at a first time point T_1 and the second data volume is obtained at a second time point T_2.

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Currently amended) A method for ~~generating a three dimensional data volume~~ designing an implant for a body part, comprising: acquiring at least two data volumes from at least two body part images performed in two different planes; combining the data volumes to form a resultant data volume; deriving the three-dimensional shape of the body part from the resultant data volume; and deriving an implant shape utilizing the three-dimensional shape information ~~resultant data volume~~.

39. (Previously presented) The method of claim 38, wherein the combining step comprises: obtaining gray values for each data point in each of the data volumes; interpolating a resultant gray value from gray values; and assigning the resultant value to each data point of the resultant data volume.

40. (Canceled)

41. (Previously Presented) The method of claim 38, wherein the two scans are performed at ninety degrees relative to one another.

42. (New) The method of claim 1, wherein the resultant boundary image data volume is used to derive an implant shape.

43. (New) The method of claim 42, wherein the implant is selected from the group consisting of knee, hip, spine and shoulder implants.

44. (New) The method of claim 1, wherein the scans are performed at ninety degrees relative to one another.

45. (New) The method of claim 1, further comprising selecting or monitoring a therapy using the resultant boundary data volume.

46. (New) The method of claim 1, further comprising deriving the three-dimensional shape of the body part from the resultant boundary data volume; and deriving an implant shape utilizing the three-dimensional shape information.

47. (New) The method of claim 1, wherein the first image data volume is obtained at a first time point T_1 and the second image data volume is obtained at a second time point T_2.

48. (New) The method of claim 11, wherein the implant is a knee implant.

49. (New) The method of claim 11, wherein the implant is a hip implant.

50. (New) The method of claim 11, wherein the implant is a spine implant.

51. (New) The method of claim 11, wherein the implant is a shoulder implant.

52. (New) A method for selecting an implant for a body part, comprising: obtaining a first image data volume from a first image(s) in a first plane; obtaining a second image data volume from a second image(s) in a second plane; combining image data from each of the first and second image data volumes; and using the combined image data to select an implant shape.

53. (New) The method of claim 52, further including: obtaining at least one additional image data volume from at least one additional image in a plane different than the first plane and the second plane; and combining the additional image data volume with the resultant image data volume to select an implant shape.

54. (New) The method of claim 52, wherein the resultant image data volume is near-isotropic.

55. (New) The method of claim 52, wherein the resultant image data volume is isotropic.

56. (New) The method of claim 52, wherein the first plane is at an angle relative to the second plane.

57. (New) The method of claim 56, wherein the angle is between about 0 and about 180 degrees.

58. (New) The method of claim 56, wherein the angle is between about 0 and about 90 degrees.

59. (New) The method of claim 52, wherein the implant is a knee implant.

60. (New) The method of claim 52, wherein the implant is a hip implant.

61. (New) The method of claim 52, wherein the implant is a spine implant.

62. (New) The method of claim 52, wherein the implant is a shoulder implant.

63. (New) A method for selecting an implant for a body part, comprising: acquiring at least two data volumes from at least two body part images performed in two different planes; combining the data volumes to form a resultant data volume; deriving the three-dimensional shape of the body part from the resultant data volume; and selecting an implant shape utilizing the three-dimensional shape information.

64. (New) The method of claim 63, wherein the combining step comprises: obtaining gray values for each data point in each of the data volumes; interpolating a resultant gray value from gray values; and assigning the resultant value to each data point of the resultant data volume.

65. (New) The method of claim 63, wherein the two scans are performed at ninety degrees relative to one another.

66. (New) The method of claim 63, wherein the implant is selected from the group consisting of knee, hip, spine and shoulder implants.

67. (New) A method for designing an implant for a body part, comprising: obtaining a first image data volume from a first image(s) in a first plane; obtaining a second image data volume from a second image(s) in a second

plane; utilizing image data from each of the first and second image data volumes; and using the image data from the first and second image data volumes to derive an implant shape.

68. (New) The method of claim 67, further including: obtaining at least one additional image data volume from at least one additional image in a plane different than the first plane and the second plane; and utilizing the additional image data volume with the resultant image data volume to derive an implant shape.

69. (New) The method of claim 67, wherein the first plane is at an angle relative to the second plane.

70. (New) The method of claim 69, wherein the angle is between about 0 and about 180 degrees.

71. (New) The method of claim 70, wherein the angle is between about 0 and about 90 degrees.

72. (New) A method for selecting an implant for a body part, comprising: obtaining a first image data volume from a first image(s) in a first plane; obtaining a second image data volume from a second image(s)in a second plane; utilizing image data from each of the first and second image data volumes; and using the image data from the first and second image data volumes to select an implant shape.

73. (New) The method of claim 72, further including: obtaining at least one additional image data volume from at least one additional image in a plane different than the first plane and the second plane; and utilizing the

additional image data volume with the resultant image data volume to select an implant shape.

74. (New) The method of claim 72, wherein the first plane is at an angle relative to the second plane.

75. (New) The method of claim 74, wherein the angle is between about 0 and about 180 degrees.

76. (New) The method of claim 75, wherein the angle is between about 0 and about 90 degrees.